HOW DO IDAHO'S LINEUPS LINE UP?

AN EXPLORATORY STUDY

ON CONGRUENCE TO NATIONALLY RECOMMENDED PRACTICES

IN EYEWITNESS IDENTIFICATION PROCEDURE

by

Nichole Jolein Gerhard

A thesis

submitted in partial fulfillment

of the requirements for the degree of

Master of Arts in Criminal Justice

Boise State University

May 2010

BOISE STATE UNIVERSITY GRADUATE COLLEGE

DEFENSE COMMITTEE AND FINAL READING APPROVALS

of the thesis submitted by

Nichole Jolein Gerhard

Thesis Title: How Do Idaho's Lineups Line Up? An Exploratory Study on Congruence to Nationally Recommended Practices in Eyewitness Identification Procedure

Date of Final Oral Examination: 08 April 2010

The following individuals read and discussed the thesis submitted by student Nichole Jolein Gerhard, and they also evaluated her presentation and response to questions during the final oral examination. They found that the student passed the final oral examination, and that the thesis was satisfactory for a master's degree and ready for any final modifications that they explicitly required.

Jeremy Ball, J.D., Ph.D.	Chair, Supervisory Committee
Andrew Giacomazzi, Ph.D.	Member, Supervisory Committee
Greg Hampikian, Ph.D.	Member, Supervisory Committee

The final reading approval of the thesis was granted by Jeremy Ball, J.D., Ph.D., Chair of the Supervisory Committee. The thesis was approved for the Graduate College by John R. Pelton, Ph.D., Dean of the Graduate College.

DEDICATION

I would like to dedicate this thesis to my parents, Mike and Sally. Thank you for your undying love and support. Without you I would not be the person that I am. Thank you for always letting me know that I have the ability to achieve anything that I set my mind to. I love you from the bottom of my heart.

ACKNOWLEDGMENTS

First and foremost, I would like to thank my thesis chair, Dr. Jeremy Ball. Jeremy, words cannot begin to describe how much you have helped me, not only with my thesis, but also throughout my career as a graduate student. I have never had a professor devote so much time, and work so tirelessly, until I understood the areas that frustrated me. You have been there for me on what seemed like some of the worst days of my life. You listened, offered guidance, and gave me the courage that I needed to pull though. Thank you for standing against the rush of the current, for believing in me, and for being there. I am not sure I could have done it without you.

I would also like to thank my committee members, Dr. Andy Giacomazzi and Dr. Greg Hampikian, Your guidance and insight have been invaluable. Andy, you have enriched my time in graduate school more than you will ever know. Working alongside you for APS, and getting to know you as a professor and as a friend has been more than a pleasure. Greg, I have learned so much from you. Thank you for letting me work with you and bringing me on as a member of your team. The experiences with you have had an immense impact on my life and the way that I view the world. I feel like a more well-rounded person as a result, and believe that I have gained a better perspective on how to make a difference in this world.

I would like to thank the rest of the professors and staff in the Criminal Justice Department at Boise State University. You have all been so wonderful. Thank you for being a second family to me. Thank you for fostering a love of learning and research. My

time here, and with you all, has inspired within me an inquisitive nature that is greater than I ever thought possible.

To my Marianne, best friend and confidant, I will never be able to express how amazing you are. Thank you for enabling me to regain my sanity in those last weeks of the process. Thank you for all of the memories. I will never forget the multitude of all-nighters in the graduate lab. You will always have a special place in my heart, simply because of who you are and what you stand for. I am so thankful to have you in my life.

I would like to thank all of my family, especially my parents Mike and Sally and my brother Travis, for all of their support. Without my wonderful family I could not have made it this far.

ABSTRACT

The following research is an exploratory study into the level of congruence of Idaho law enforcement agencies to nationally recommended best practices in eyewitness identification procedure. Based on a series of questions relating specifically to the use of recommended procedures in eyewitness identification, law enforcement agencies were graded and assessed an individual score within two different levels of congruence: *overall* and *functional*. With three possible groups, *desirable*, *average*, and *poor*, the majority of Idaho departments received scores placing them in *average* standing for both *overall* and *functional congruence*. Three dominant themes in the research (agency type, written procedure, and officer training) were also paired with *overall* and *functional congruence* to gauge their relationship, if any, with congruence to the recommended practices. It was hypothesized that if a department had a written procedure for conducting eyewitness identifications they would be more compliant than departments without written procedures. While this was partially true, officer training appears to have the greatest impact on congruence for law enforcement agencies in the State of Idaho.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

There are different types of evidence presented in court to substantiate a State's case. Some types of physical evidence include documents, videotapes, or the weapon used in the commission of the crime. The evidence may also rely on forensic science, including bloodstains, clothing, hairs, or fibers. All of these types of evidence are subjected to rigorous evidentiary standards for admissibility according to statutes. Another valuable, but potentially flawed, piece of evidence is testimony from an eyewitness. "[E]yewitness evidence is based on memory, whereas physical evidence is based on tangible objects and is often accompanied by expert opinion" (Skolnick & Shaw, 2001, p. 617). Although relied upon by jury members, eyewitness testimony has its limitations.

A person's perception of an event is just that, a perception. What they witnessed and what someone else saw may be dissimilar. These disparate observations are found time and again in studies on eyewitness reliability (Musterberg, 1908, as cited in Loftus, 1979; Landecker, 1941; Shaw & McClure, 1996). Human memory is malleable. The acquisition and retention of memories are influenced by physiological responses experienced by the witness given the environmental surroundings (Deffenbacher, Borstein, Penrod, & McGorty, 2004). These responses can be based on the witness' stress level, the presence of a weapon, or whether they know the suspect (Ellis, 1984; Pickel, Ross, & Truelove, 2006; Ellis & Deregowski, 1981). Unlike physical evidence, there are

no rigorous testing procedures to examine the validity and reliability of eyewitness testimony. The only "test" is through examination of the witness at trial. "Even the most honest and objective people can make mistakes in recalling and interpreting a witnessed event; it is the nature of human memory" (USDOJ, 1999, p. iii). Take, for instance, the following example.

Think about a time when everything was relaxed. Having fun with friends at the movies. After the movie everyone walks out to the parking lot and sees someone back into another car and drive away. It is that fast! Someone from the movie theatre comes out and asks, What happened? What kind of car was it? What color was the vehicle? Which way did the vehicle pull out after exiting the parking lot? Did you see the driver? What did the person look like? Was the driver male or female? Were there any other passengers in the car? Did you get the license plate? There are all of these questions that are supposed to be answered, with only seconds of visual observation. It may be easy to tell the officer who arrives that the written statement is accurate, but what if the witnessed event involves a shooting rather than a minor hit and run? What if the statement submitted will then be used in court to determine guilt? Are the eyewitness' statements made to the officer more or less accurate than they were in the first scenario? Can a jury really rely on a witness' testimony that is based on seconds of observation to determine guilt?

Eyewitness evidence continues to be an integral part of trials and will likely continue to for years to come. In order to safeguard against misidentification of the suspect, there are certain guidelines that should be followed. The following review of

literature offers a synthesis of the current recommendations of proper eyewitness identification procedures by various agencies and individuals including the National Institute of Justice, the Innocence Project, and academic scholars.

REVIEW OF THE LITERATURE

In order to fully understand the present study and the recommended practices therein, it is first important to understand how these recommendations arose. There have been numerous studies conducted over the decades specifically dedicated to gaining a better understanding of the various elements on memory formation (Deffenbacher, 1994; Deffenbacher, et al., 2004; Ellis, 1984; Ellis & Deregowski, 1981; Loftus, 1979; Wells, 1978; Steblay, 1992; Hinz & Pezdek, 2001; USDOJ, 1999; Meissner & Brigham, 2001; Pickel, 1998; Pickel, et al., 2006; Skolnick & Shaw, 2001; Sporer, Trinkl, & Guberova, 2007; Stanny & Johnson, 2000). Beyond that, additional research has focused on various elements and/or situations that can impede memory formation and recollection. This research has shown that under certain circumstances memory formation and the overall recollection process can be affected. It is these research studies that have been the basis for the development of the recommended best practices.

Memory Formation

"Memory for anything, including faces, is traditionally reduced to…three distinct processes…: encoding or acquisition, storage [or retention], and retrieval" (Ellis, 1984, p. 12).

Encoding[1]

Encoding, or acquisition, is the first step in the formation of any memory. Facial encoding is the process of absorbing different aspects of the observed person into the identifier's memory for later retrieval. It is done as a process, rather than the acquisition of the individual facial features. "A considerable body of evidence indicates that some facial features are given more attention than others, which may enhance their particular encoding" (Ellis, 1984, p. 14). Specifically, more attention seems to be paid to the upper part of the face rather than the lower facial features such as lips and chin. Interestingly, the "nose, mouth, lips, teeth, beard, and mustache together only accounted for about [nine percent] of the total number of features reported" (Ellis, 1984, p. 15). It is suggested that 'normal' faces are not as easily encoded and recognized as faces with unique characteristics (Ellis, 1984). If a person has a large scar or deformation on their face, they are likely to stand out more than someone without those features.

The amount of time spent viewing the face can also affect the encoding process. It is not difficult to assume that the more time spent viewing a person, the easier it would be to recall more details. In a witnessed event, there is generally not one static moment where everything is stationary and perfect for viewing (Ellis, 1984). The complexity of an incident can impact the amount of detail and accuracy the witness has (Loftus, 1979). "In real life, more than a person's head is viewed within an environment rich in visual and aural detail" (Ellis, 1984, p. 20). This concept is especially true in violent or stressful situations. A person is likely to focus not only on the assailant's face but also on weapons

[1] The terms "encoding" and "acquisition" will be interchangeable hereafter as their use depends on the author cited.

or other perceived threats (Ellis, 1984). In these instances attention is diverted from the attacker's face and can skew the acquisition of facial features, making it more difficult to accurately recall the description of the individual.

Retention

Retention is the time span between the acquisition and retrieval of the memory (Loftus, 1979). The events that occur during the retention stage are critical to how those memories are recollected. If other information is introduced to the witness after the initial event has occurred-through media sources, lineups, or personal playback of the events-the witness' initial memory can become altered (Loftus, 1979). New information can be added from alternate sources thereby erasing previous information (Loftus, 1979). In the instance of retaining information for use at a later lineup procedure, if the witness has watched various news media outlets and has seen pictures of the suspect that has been arrested, that information can potentially overwrite the initial description that the witness remembers. This witness is then not able to differentiate between the person he/she saw at the scene of the crime and the suspect shown on the news, which can lead to a misidentification during the lineup procedure.

Retrieval

Retrieval of the memory is the act of recalling the events that have been perceived and stored. Retrieval of the memory, at this point, does not differentiate between the original memory and any alterations to that memory that may have occurred (Loftus,

1979). It has become a mixture of both. For example, the United States Supreme Court ruled in *Simmons v. United States* (1968) that showing the witness photographs of the suspect via mugshots may decrease witness reliability as "the witness…is apt to retain in his memory the image of the photograph rather than of the person actually seen" (p. 383). In this case, the Supreme Court indicated that, even under the best circumstances, not all identifications by a witness would be reliable and, therefore, necessary precautions should be taken to ensure that the people in the photos do not stand out from, or occur more often than, others in the photo array (*Simmons v. United States*, 1968). Given the complexity of memory formation and how easily changes to the memory can occur, it is important to associate the use of multiple photos with the use of multiple lineups.

The use of multiple lineups refers to showing more than one lineup to a single witness. Behrman and Davey (2001) studied eyewitness identifications to gauge whether changes in suspect choice were present after multiple lineup procedures were presented. It was found that witnesses who had rejected or were unsure if the person was the suspect in the initial procedure, changed their answer to the affirmative in the subsequent procedure. While it was not clear "whether the process involved one of overwriting or source exchange," the witness is no longer able to differentiate between their original memory and what they have been shown through the different lineups (Behrman & Davey, 2001, p. 488). It is thought that the witness recognizes the face from a past lineup, but is not able to make the distinction between whether they are recognizing the face of the suspect or if they are remembering the same person from a previous lineup. Even without the problems that can arise from multiple lineups, it is important to discuss

factors that can influence memory formation. Although the present study does not investigate these factors, the research summarized here will show that memory can be faulty, thereby making eyewitness identifications faulty as well. If convictions rely heavily on eyewitness testimony and eyewitness identifications can be faulty, then the validity of the convictions may be in question.

Factors Influencing Memory and Identification

Cross-Race Effect

Studies have shown that a person's recognition of faces from their own race is superior to that of another race (Ellis & Deregowski, 1981; Bothwell, Brigham, & Malpass, 1989; Kleider & Goldinger, 2001; Sporer et al., 2007). It has been suggested that increased contact with other racial groups is beneficial to correct recognition of those groups. Results on this issue have been mixed, however (Meissner & Brigham, 2001; Shriver, Young, Hugenberg, Bernstein & Lanter, 2008). Some research even suggests that it is not enough to simply live in a diversely populated area, but also that a person must feel comfortable around those other racial groups in order to increase recognition rates (Ellis & Deregowski, 1981).

There are a few different ways to view the cross-race effect phenomenon. First, a person may live in a diverse city comprised of multiple races all living and working together. However, as suggested above, eyewitness accuracy may be dependent on a person's comfort level around those of another race (Ellis & Deregowski, 1981). Even living and working in close proximity does not mean that people of different races

associate with one another in a social setting. Second, a person may live in a more homogenous city and not have much interaction with persons of different racial groups. In this case, they may have nothing against a person of a different race, they have just simply never been around these racial groups and are, thus, not acclimated to recognition of a person of a different race. In a typical situation, remembering what someone of another race looks like is not necessarily important. However, the cross-race effect is especially consequential when discussing eyewitness identification accuracy. Mistaking someone you do not know for someone else is a harmless mistake; trying to identify a total stranger is something different (Levi & Jungman, 1995, p. 350). Adding in the element of a different race makes the identification process all the more complex.

Weapons Effect

Weapons effect is a widely studied area of eyewitness identification (Behrman & Davey, 2001). This phenomenon is the tendency for a person to "focus" on the weapon, decreasing the amount of other details remembered, specifically the suspect's appearance (Pickel, 1998; Pickel et al., 2006). A meta-analysis of studies conducted on the weapons effect concluded that fewer accurate identifications were made by witnesses when weapons were present than when they were absent (Steblay, 1992).

There are two competing theories behind the weapons effect. The first, and probably the most obvious, is that weapons of any kind can be scary. Therefore, because of possible threat of bodily injury, a person will focus on the weapon in an attempt to ensure his or her own safety (Pickel et al., 2006). Surprisingly, this theory does not have

much of an empirical base (Pickel et al., 2006). The second theory is rooted in the belief that weapons are not common in the typical day-to-day context of most people's lives. Therefore, a person will fixate on the weapon, minimizing the amount of detail encoded (Pickel et al., 2006). Studies have shown that these results were not only for weapons, but any objects that were rated as 'novel' or 'unique' (Pickel et al., 2006).

The heightened arousal and stress levels induced by a simulated shooting reduced the amount of details recalled by law enforcement officers equally to that of citizens (Stanny & Johnson, 2000). It did not matter whether the police were actively participating in the simulation or were bystanders (Stanny & Johnson, 2000). Also, different stress levels were administered during a simulated shooting to examine if there was an effect on the amount of details remembered regarding the suspect (Stanny & Johnson, 2000). It was found that, regardless of the level of stress administered, the weapon had the greatest effect. The numbers of details remembered about the suspect were still lower when a weapon was present than when it was not.

Stress

Stress by itself can also greatly impact a witness' memory. In their meta-analytic review of the effects of high stress on eyewitness memory, Deffenbacher et al. (2004) found that an increase in somatic anxiety has a negative effect on identification of the suspect. Somatic anxiety is a physiological response to an emotional state (Deffenbacher et al., 2004). In order to fully comprehend the negative effect that stress can have on memory formation further examination of somatic anxiety is warranted.

There are two neural control systems, or modes, that are regulated by environmental stimuli (Deffenbacher et al., 2004). These consist of the activation mode and the arousal mode. The activation mode responds to cues of heightened stress or anxiety and would include events that cause a person to feel the need to escape or defend themselves (Deffenbacher et al., 2004). These situations would result in activation of the autonomic nervous system (Walsh, 2009). A typical person's heart rate will increase due to a flush of adrenaline. This adrenaline may also cause them to tense up or shake, increasing muscle tone; and the person will begin to sweat (Deffenbacher et al., 2004).

Arousal mode is the opposite of activation mode. In this case, the increase in heart rate and muscle tone are absent along with the flush of adrenaline (Deffenbacher et al., 2004). The arousal mode is typically activated in situations where minimal stress is experienced by the individual. Therefore, "[a]ttention is allocated to the most informative aspect of the stimulus array, rather than being restricted to a specific…motivational content" (Deffenbacher et al., 2004, p. 688).

Tasks eliciting activation mode result because of somatic anxiety. Somatic anxiety is the physiological response due to activation of the autonomic nervous system as a result of environmental stimuli (Deffenbacher et al., 2004). This physiological response is the increase in heart rate, muscle tone, and the like. When a person experiences small levels of stress (arousal mode), Deffenbacher (1994) found that effective memory retention increased. However, when levels of stress are increased resulting in activation of the autonomic nervous system (activation mode), typically

described as 'fight or flight,' memory either slightly increased or was considerably reduced (Deffenbacher, 1994).

Deffenbacher and his colleagues (2004) identified two variables that have consistent effects on eyewitness memory: research paradigm and lineup type, the latter of which is important for the purpose of this study. Using two different kinds of lineups, target present (TP hereafter)[2] and target absent (TA hereafter)[3], coupled with low stress or high stress situations, they were able to show that, more often than not, a high stress witness viewing a TP lineup is more likely to choose a filler than a suspect. In low stress situations, their results show that in TP lineups, "59 guilty perpetrators would be identified for every 100 arrays, and 66 mistaken identifications would be made for every 100 TA lineups" (Deffenbacher et al., 2004, p. 701). In high stress situations, with the same number of TA and TP lineups, the number of identified guilty perpetrators is lowered to 39, but there are still 66 misidentifications. It is worth noting that this is assuming the lineup is not biased. If the lineup is biased, an innocent suspect will be chosen twenty to thirty percent more than the average filler (Deffenbacher et al., 2004).

All of these elements- cross-race effect, weapons effect, and stress – are all part of what are known as *estimator variables*. Estimator variables are those elements "that cannot be controlled by the criminal justice system" (Innocence Project, 2009b). Witnesses are going to experience stress at levels that will inhibit their identification capabilities. That outside world cannot be controlled. What can be controlled however, are *system variables*. As is implied by the name, *system variables* are implemented and

[2] Target present (TP) asserts that the suspect is present in the lineup.
[3] Target absent (TA) asserts that the suspect is not present in the lineup.

controlled by the criminal justice system. They include all of the aspects related to the retrieval and preservation of eyewitness memory and the identification procedure (Innocence Project, 2009b). By making the identification procedures reliable, and following recommendations from research in best practices, the number of incorrect identifications can be significantly reduced. It is important to note, however, that, while studies on memory formation and recall have been the basis for the development of these nationally recommended practices, their elements have not been included as variables within the present research.

The idea here is to illustrate the reason and premise behind the recommended practices and establish a foundation for which this research is the basis for (i.e. identify the degree to which the State of Idaho adheres to those practices). It is the lineup procedures themselves, and the method by which the agencies in Idaho conduct them, that is under investigation.

Description of Identification Procedures

There are three different lineup identification procedures that can be utilized: physical identifications (lineups), photo identifications (photo arrays), and field identifications (showups). The focus of this study is physical and photo lineup procedures. Physical lineups typically contain at least five individuals. Photo lineups usually have at least six photos (Schuster, 2007). In both cases, the typical procedure consists of only one suspect, with the participants acting as "fillers." Fillers are individuals, usually police officers, bearing a close resemblance to the suspect that "fill

in" the remaining members of the lineup (Eyewitness Identification Resource Guide, 2007).

Both physical and photo identifications can be implemented either simultaneously or sequentially. Simultaneous lineups, regardless of whether they are physical or photo, involve the showing of all members of the lineup at the same time (Schuster, 2007). In a sequential lineup, the members are presented one at a time. The witness must give an affirmative yes or no answer as to whether the shown person (or photo of a person) is the suspect before moving on to the next individual. This procedure also does not allow the witness to review past members of the lineup once they have given their answer (Dysart & Lindsay, 2001). Depending on the jurisdiction, the rest of the potential suspects and/or photos of potential suspects may be shown even if the witness identifies someone (USDOJ, 1999).

When a single suspect is brought to a witness at a crime scene or shown to a witness at a designated location, without any fillers, it is called a 'show-up' (Eyewitness Identification Resource Guide, 2007). Given the possibility that the suspect brought to the witness is innocent, along with the inherent suggestibility of presenting a single suspect to a witness, there is a need to administer unbiased instructions to the witness prior to observation of the suspect (Steblay, Dysart, Fulero, & Lindsay, 2003). This suggestibility may be minimal if the witness is still at the scene of the crime but could increase if they are called to the station to view a single suspect. While this type of lineup is interesting and merits further research in the field, the recommended practices that are discussed

herein cannot all be applied to showups. As these recommendations are necessary to the overall research herein, in-depth analysis of the showup procedure cannot be included.

Best Practices

Eyewitness misidentification in the initial case is the leading cause of exonerations around the country. "[S]tudies show that the rate at which eyewitnesses select non-suspect[s] from photo and live lineup members during the course of an identification procedure hovers around 20%" (Eyewitness Identification Resource Guide, 2007, p. 4). In cases where post-conviction DNA exonerates a suspect, over 75% of the cases either heavily or solely relied on eyewitness identification to obtain a conviction (Eyewitness Identification Resource Guide, 2007). In order to ensure that eyewitness identifications are valid, certain procedures are recommended. These recommendations represent best practices for eyewitness identification procedures (Eyewitness Identification Resource Guide, 2007). Much research has been conducted by various agencies around the country in order to formulate the following best practices for lineups. The U.S. Department of Justice, National Institute of Justice, and the Innocence Project, have all agreed on the following five "primary reform recommendations" in order to secure the accuracy of eyewitness identifications (Eyewitness Identification Resource Guide, 2007, p. 5). These recommendations consist of:

- Instructing the witness prior to the identification procedure
- Using fillers based on witness' description
- Using double blind administration during the identification procedure

- Obtaining a confidence statement after an identification is made
- Recording the identification procedure

Although not a primary recommendation, one important identification procedure is the use of sequential lineups rather than simultaneous lineups (Eyewitness Identification Resource Guide, 2007). Double blind sequential lineups offer the broadest protection to innocent suspects (Z. Edwards[4], personal communication, November 21, 2008). The separate conditions of double blind and sequential are often addressed jointly because empirical research demonstrates that all sequential procedures must be done blind, since non-blind sequential procedures are the most dangerous to innocent suspects (Z. Edwards, personal communication, November 21, 2008). However, double blind procedures do not have to be performed sequentially. Therefore, while advocates cannot support the sequential procedure without supporting double blind procedures, the opposite does not hold true. This distinction is often not made by law enforcement police and legislators at the local level (Z. Edwards, personal communication, November 21, 2008). Thus, opposition to the sequential procedure often results in opposition to double blind procedure as well. Therefore, to preserve the other important reforms, including double blind lineups, the sequential procedure is not considered a "primary" reform recommendation (Z. Edwards, personal communication, November 21, 2008). For the

[4] Ezekiel "Zeke" Edwards is the Innocence Project Staff Attorney on eyewitness identification. Prior to joining the Innocence Project in 2006, Zeke worked for four years as a public defender in the Bronx representing over 2,000 clients in both felony and misdemeanor jury and bench trials. Zeke also spent three years as an investigator at the Capital Defender's Office in Manhattan working on behalf of people facing the death penalty. From January 2006 to December 2007 Zeke was a Criminal Justice Fellow at the Drum Major institute for Public Policy. He graduated from Vasser College in 1995, and in 2002 from the University of Pennsylvania Law School, where he was a Public Interest Scholar focusing on criminal defense and international human rights.

purposes of this research, however, the sequential procedure will be included to more fully examine procedures in place in the State of Idaho.

Recommendations

Instructing the Witness

Instructions to the witness are to be made prior to conducting the identification procedure. These instructions do not vary depending on the type of identification procedure being employed. The instructions are to be as non-suggestive and un-biased as possible, such as referring to a mug book "only as a collection of photographs" (USDOJ, 1999, p. 19). By using the term 'mug book,' the witness can then infer that the individuals within the book have been arrested previously. It is then recommended that the administrator inform the witness that the suspect may or may not be present within the photos or persons they are about to view. They are to ask the witness to recollect the time of the incident- focusing on how they felt and what they saw- select the person if they recognize them, and state how they know the person. It is also recommended that the administrator inform them that the investigation will continue regardless of whether or not the witness chooses someone (USDOJ, 1999). The necessity of unbiased instructions is evidenced in research studies involving target-absent lineups. This research concluded that proper, and therefore unbiased, instructions in target-absent lineups increased correct rejection of the lineup (Malpass & Devine, 1981). However, when biased instructions were given to the witness, there was an increase in incorrect identifications (Malpass & Devine, 1981).

Overall, the research regarding witness instruction has had much the same result as research involving Miranda warnings. While police were initially hesitant to employ the mandated statements for fear of a decrease in confessions, research showed that the level of confessions remained steady (Younger, 1966; Pepinksy, 1970). Thus far, the same holds true for instructing the witness, albeit in a different form. Research has indicated that regardless of whether instructions are given, correct identifications will remain constant (Steblay, 2006). However, administering unbiased instructions decreases guessing on the part of the witness thereby lessening the selection of an innocent person (Eyewitness Identification Resource Guide, 2007). These instructions serve to ease the pressure put on the witness during the identification procedure and aim to decrease misidentifications that could otherwise result in a wrongful conviction.

Selection of "Fillers"

"Fillers" are individuals selected to comprise the remaining slots of a lineup or photo array. These fillers should be selected based on the description provided by the witness (Eyewitness Identification Resource Guide, 2007). This distinction is made in order to highlight those law enforcement departments that may base the selection of fillers on the description of their suspect.

While fillers should fit the description given by the witness, it is also recommended that they "look different enough to be discernable from each other" but at the same time not stand out (Eyewitness Identification Resource Guide, 2007, p. 16; Schuster, 2007). Fillers should also not possess any distinctive features, such as visible

tattoos, scars, and the like, but instead be selected in a way that does not increase the likelihood of guessing on the part of the witness. There should be at least five fillers in a photo array and at least four fillers in a live lineup. In order to avoid contamination of previous memories in instances where prior lineups have been shown to a witness, it is recommended that different fillers be used (Eyewitness Identification Resource Guide, 2007).

Double Blind Administration

Double blind administration of the identification procedure requires that the person administering the lineup does not know which person the suspect is (Eyewitness Identification Resource Guide, 2007). By using this procedure during eyewitness identifications, whether photo or live, there will be protection against verbal and nonverbal cues to the witness. These cues can lead the witness either to the suspect or away from the filler, or prejudice their confidence level in their final selection if one is made (Eyewitness Identification Resource Guide, 2007). “Past research has demonstrated that a simple smile from a lineup administrator can lead eyewitnesses to make false identifications” (Garrioch & Brimacombe, 2001, pp. 300-301).

For more rural states, where some local police departments are considerably smaller, one may inquire as to the feasibility of conducting double blind administration of their lineup procedures. It is argued that there are simply not enough officers available. In instances such as this, the “folder system” can be utilized, which consists of ten folders, one suspect photo, and five filler photos (Eyewitness Identification Resource Guide,

2007). The first folder is labeled #1 and a filler photo is placed inside. According to the Eyewitness Identification Resource Guide (2007), the administrator then places the rest of the photos, including the picture of the suspect, into the remaining folders, shuffles them with the empty folders, and numbers them two through ten (Eyewitness Identification Resource Guide, 2007). This prevents the administrator from knowing which folders have pictures in them, as well as which folder contains the suspect's photo. The administrator should be careful that all of the filler photographs match the description of the perpetrator given by the witness and that the suspect's photograph does not stand out among them (Eyewitness Identification Resource Guide, 2007). The administrator should then provide the proper instructions to the witness and give each folder to the witness one by one. After viewing each folder the witness should return it to the administrator facedown to preserve the order with which they were viewed. After all photos have been viewed the administrator should document the entire process of the identification procedure. Record should be made of the photos used; the date, time, and location where the identification took place; the witness' confidence statement; and the order that the folders were presented in (Eyewitness Identification Resource Guide, 2007). Pertaining to photo arrays, it is also recommended that photos be categorized by format (color or film type), race, age, and gender, as well as crime type.

Sequential Lineup Procedure

While the simultaneous procedure is the most commonly used method for conducting lineups, researchers and advocates prefer the sequential procedure (Schuster,

2007). In the sequential procedure each person in the lineup, either photo or live, is presented to the witness one at a time. In the sequential procedure, 'absolute judgment' is used rather than 'relative judgment' (Schuster, 2007).

Through the use of absolute judgment, the witness must compare each person presented to them to his or her memory of the suspect. The witness must then give a definitive 'yes' or 'no' answer prior to viewing the next suspect. Jurisdictional variations determine whether the rest of the suspects in the sequential lineup will be viewed if an identification is made. Research has shown that the sequential procedure requires the witness to draw deeper on memory and focus individually on each potential suspect before making a decision on who they saw at the scene, therefore, decreasing misidentifications (Steblay et al., 2003).

The "relative judgment" strategy, on the other hand, poses that, in general, witnesses will tend to choose people who most closely resembles the person who committed the crime (Leippe & Wells, 1995). In a recent Idaho Supreme Court case, attorney Greg Silvey summed up this propensity saying that if one were asked to choose from a group of men, who most closely resembled George Clooney, surely someone would be chosen (*State of Idaho v. Pearce*, 192 P.3d 1065). However disparate the men may be from Mr. Clooney, someone will ultimately look more similar to him than the rest. This is why researchers and advocates favor the use of the sequential procedure. The witness cannot compare the people in the lineup to see who looks 'more like' the suspect than another. Instead, they must draw solely upon their memory and how each individual person presented to them compares to that memory. This is also why, when an

administrator gives the witness instructions, they should not use any form of the phrase 'most closely resembles.' As Wells (1984) discussed in this 'relative judgment' strategy, instructing the witness to choose the individual in a lineup that 'most closely resembles their memory of the criminal,' is overly biased. The use of relative judgment is only effective if the actual perpetrator is present in the lineup. When the suspect is not present, "many witnesses continue to use the relative judgment strategy, resulting in an increase in the selection of an innocent lineup member" (Steblay et al., 2003, p. 524).

In comparison studies of simultaneous and sequential lineup procedures, witnesses were less likely to choose someone from the lineup when suspects were presented sequentially rather than simultaneously (Steblay et al., 2003). Based on this research, it is understandable that advocates for the sequential method would be met with opposition from law enforcement entities. If witnesses do not identify anyone from the lineup, suspects are not singled out and, therefore, the case against them is weakened. However, if no one is chosen from the lineup, the likelihood of choosing someone who is innocent is also decreased (Steblay et al., 2003). When compared with simultaneous presentation of suspects, the sequential method results in a 25% reduction in false identification. Simultaneous presentation resulted in a 200% increase in false identifications (Steblay et al., 2003). Both simultaneous and sequential methods, though, yield approximately the same results in *correct* identifications.

Confidence Statement

Immediately upon identification of a suspect, it is recommended that the witness articulate the level of certainty in the identification he or she has just made (Eyewitness Identification Resource Guide, 2007). This confidence statement establishes a level of reliability with which the identification of the suspect can be judged. It can also have a powerful effect on jurors. "Even when participant-jurors are explicitly instructed that confidence is not a reliable predictor of accuracy, high eyewitness confidence leads to more favorable evaluation of the eyewitness than does low confidence" (Bradfield & McQuiston, 2004, p. 370). A person's confidence level is subjective and, for that matter, malleable. The smallest amount of information can change how certain he/she is about elements of a particular event.

It is in this regard that specific attention needs to be paid to the *retention* portion of the previous discussion on memory formation. To reiterate, *retention* is the gap in time between the initial perception and subsequent recollection of the event. It is in this stage of memory formation that information can be altered by intervening sources. Feedback from a lineup administrator would qualify as an intervening source, serving to increase or decrease confidence levels and, subsequently, change the memory of the witnessed event permanently. In current law, there is nothing prohibiting an administrator from notifying the witness as to the status (i.e. whether he or she has made a correct or incorrect identification) of the person they have chosen (Garrioch & Brimacombe, 2001; Leippe & Wells, 1995; Z. Edwards, personal communication, August 25, 2008). Studies have shown that "randomly assigning eyewitnesses to hear confirming feedback about the

accuracy of their identification dramatically inflated their retrospective reports of how confident they were at the time of their identification, compared with a control condition" (Bradfield & McQuiston, 2004, p. 370).

The greater the level of confidence asserted by the witness, the greater the level of credibility that is given their recollection of the events that occurred (Bradfield and McQuiston, 2004). If the administrator does not know who the suspect is in the lineup, the chance of giving the witness verbal or nonverbal cues is decreased. Therefore, the lineup is not tainted in this manner, the administrator has not interfered in the retention portion of memory formation, and any confidence statement given by they witness is as reliable as it can be given the current circumstances.

Recordation of the Identification Procedure

Documenting the identification procedure is recommended for a variety of reasons. First, documentation of the procedure furnishes a precise record of the information obtained from the witness (USDOJ, 1999). According to the Department of Justice's Guide Book (1999), it is recommended that the administrator write down the type of procedure that was used (e.g., mug book, photo array, lineup) as well as the results of the procedure. These results should be in the witness' own words and should contain the confidence statement. All items used in the procedure should also be documented for future reference. Some recommendations suggest that agencies go as far as to provide an electronic recording of the procedure (Eyewitness Identification Resource Guide, 2007). It is posited that electronic recordings will allow all parties

involved to experience the events that occurred during the identification process. This method is advocated as a best practice since documentation by pen and paper alone cannot capture nonverbal communication between the administrator and the witness. Accurate documentation preserves the results of the identification procedure for use in court.

It should be noted that the best practices outlined above, even though recommended in the 'guide' provided by the U.S. Department of Justice and the National Institute of Justice, are "not a legal mandate" but "[promote] sound professional practices" and "[represent] a combination of the best current, workable police practices and psychological research" (USDOJ, 1999, p. 2).

The research that has been discussed above provides the basis for the recommended best practices. There are various elements that can hinder memory formation and recall. However, there are also guidelines that can be implemented alongside *system variables* in an attempt to counteract those elements. By implementing these *system variables*, and basing them on the recommended best practices, the reliability of eyewitness identification can be increased while simultaneously decreasing misidentifications (Wells, 1978; Innocence Project, 2009b).

METHODOLOGY

The recommended practices are grounded in a solid understanding of valid identification procedures. What is of interest here, and which has yet to be examined, is the extent to which a state is adhering to these recommended practices. This study explores eyewitness identification procedures in the State of Idaho in relation to these recommendations. The research also seeks to discover the number of police and sheriff departments in the State of Idaho that have written procedures for conducting eyewitness identifications. It was hypothesized that, as other states have found, the majority of departments in the State of Idaho are without written guidelines for conducting eyewitness identifications. Additionally, this study identifies the extent of congruence[5] to recommended 'best practices' for eyewitness identification procedures in the State of Idaho. Finally, this study will explore the factors that influence congruence to these recommended procedures. Overall, the questions this research seeks to answer are:

- What is the extent to which departments in the State of Idaho have written procedures for conducting eyewitness identifications?
- What is the extent to which departments in the State of Idaho are in *overall congruence* with best practices?

[5] Congruence here does not denote a mandated use of the recommended best practices but simply a department's choice to follow the recommendations. The study differentiates between two types of congruence, *overall congruence* and *functional congruence*, which will be further discussed later.

- What is the extent to which departments in the State of Idaho are in *functional congruence* with best practices?
- What factors are associated with *overall congruence*?
- What factors are associated with *functional congruence*?

Data

A census of Idaho police and sheriff departments was attempted. There are 76 police departments and 44 sheriff's departments in the State of Idaho, resulting in a census of 120 departments. The data for this research were obtained by soliciting information from law enforcement departments around the state using an online survey tool (Qualtrics, n.d.). Hard copy form letters were sent to each department head requesting their participation a week prior to the distribution of the actual survey (see Appendix A and B).

An email was then sent to each department head with a link to the online survey (see Appendix C). The survey was comprised of both open-ended and close-ended questions requesting information on a variety of issues such as department size, population of the area served, and techniques of lineups and their administration[6] (see Appendix D). Two weeks after the original form letter was sent out, a reminder email was sent to the departments that had not yet completed the survey (see Appendix E).

[6] Only one (1) department filled out a hard copy of the survey as their department did not have email capabilities. None of the email addresses failed when the surveys were sent, however, there were several non-responders.

Conceptualization & Operationalization

Key terms involved in this research are defined in the following manner and, unless otherwise stated, are based on those supplied by the Eyewitness Identification Resource Guide (July 2007) (see Appendix F). This resource guide was written by the Innocence Project. Given their work with the National Institute of Justice and the Department of Justice, as well as their continued efforts to reform the criminal justice system to prevent future injustice, these definitions are believed to be reliable and applicable.

Congruence

One of the key variables in this research study is congruence to the nationally recommended practices of identification procedures in the State of Idaho. The overarching questions of this research are if the recommendations are adhered to, the extent of this adherence, and what factors are associated with this adherence.

Overall Congruence

Two different levels of congruence are defined and measured in this study: *overall congruence* and *functional congruence*. As previously discussed, there are currently five primary reform recommendations for eyewitness identification procedures (Eyewitness Identification Resource Guide, 2007). The use of the sequential procedure is a secondary, yet important, recommendation. Because this procedure is still very

important to the identification process, this study will utilize it as an official recommendation for both *overall* and *functional congruence*.

Overall congruence includes all of the following recommendations:

- Instructing the witness prior to the identification procedure
- Using fillers based on witness' description
- Using double blind administration during the identification procedure
- Using the sequential procedure
- Obtaining a confidence statement after an identification is made
- Recording the identification procedure

In order to gauge the extent of *overall congruence* within the State of Idaho, departments were asked to confer how often, if at all, they implement best practices as defined above. The questions for best practices are measured by the following ordinal responses: "never," "sometimes," "most times," and "always." *Overall congruence* consists of six different procedures with a range score of 0-3, corresponding to the ordinal measures outlined above. Summing across items results in a composite "*overall congruence*" score.

Overall congruence is further broken down into three different levels: *desirable*, *average*, and *poor*, with a maximum possible score of 18. Departments with a score of 12 or higher possess *desirable congruence*. Departments with *average overall congruence* attain a score of at least 6 but not more than 11. Those departments with a score of 5 or less are in *poor overall congruence*. The ranking of these scores is chosen because, on average, a department's responses to obtain *average overall congruence* will add up to

what would be marked as “sometimes” on all relevant questions of the survey. Also, on average, a department’s responses in order to obtain *desirable overall congruence* will add up to what would be marked as “ most times” on all relevant questions of the survey.

Functional Congruence

There is a difference between a *valid* identification and the admissibility of that identification in court. A valid identification is an identification that, baring the need for introduction in court, will result in the greatest likelihood that the correct suspect is identified by the witness. While all six elements stipulated under *overall congruence* are important to the total identification procedure, it is presumed that some recommendations are not necessary to provide a valid identification. In its most basic form, obtaining a confidence statement and recording the identification procedure will not make the identification procedure more accurate. These recommendations can be necessary for admissibility of the identification and can solidify guilt in a court of law but do not speak to the validity of the procedure itself.

As such, there is a need to differentiate between those elements necessary for an identification to be admissible in court and the accuracy of the identification procedure itself. This research will not include the procurement of a confidence statement or recording of the overall identification process as elements of *functional congruence*. The procedures with the greatest likelihood of yielding a valid identification are:

- Instructing the witness prior to the identification procedure
- Using fillers based on witness’ description

- Using double blind administration during the identification procedure
- Using the sequential procedure

A *valid* identification using the procedures above will be defined as *functional congruence*. The primary purpose of this research is to determine the extent of *functional congruence* for law enforcement departments in the State of Idaho.

In order to gauge the extent of congruence, departments will be asked to confer how often, if at all, they implement the four best practices outlined above. The questions for best practices are measured by the same ordinal responses: "never," "sometimes," "most times," and "always." *Functional congruence* consists of four different procedures with a range score of 0-3, corresponding to the ordinal measures outlined above. Summing across items results in a composite "*functional congruence*" score.

Functional congruence is further broken down into three different levels: *desirable*, *average*, and *poor*, with a maximum possible score of 12. Departments with a score of 8 or higher possess *desirable congruence*. Departments with *average functional congruence* attain a score of at least 4 but no more than 7. Those departments with a score of 3 or less are in *poor functional congruence*. The ranking of these scores is chosen because, on average, a department's responses to obtain *average functional congruence* will add up to what would be marked as "sometimes" on all relevant questions of the survey. Also, on average, a department's responses in order to obtain *desirable functional congruence* will add up to what would be marked as " most times" on all relevant questions of the survey.

A final step in this study is to identify the factors that may impact a particular agency's *overall* or *functional congruence* level. These factors include department size, training, and population of the area served. These variables are measured by asking open-ended and close-ended questions. Examining these factors may assist future researchers in identifying areas that either promote or hinder congruence levels and what can be done to improve agency congruence.

Analysis

The analytical procedures employed are both descriptive and bivariate (i.e., t-test and chi square). Given the smaller sample size, a multivariate analysis was not possible. At best, therefore, only preliminary conclusions can be drawn from this study without the ability to control for important intervening effects.

RESULTS

The overall response rate on this attempted census was approximately forty percent (40%, N = 48). Due to a small sample size, a confidence interval of $p < .10$ was predetermined for all statistics.

Frequencies/ Demographics

Approximately 3/4 of the respondents identified themselves as city agencies while the remaining were county agencies. The median self-reported city population was 5,000 and the median county population was 16,500.[7] More than one-third (or 37%) of responding departments reported that they had 10 or fewer sworn officers in their department. Another 44% had between 11 and 50 sworn officers. The remaining 20% had 51 or more sworn officers in their department. It was also discovered that the most commonly used identification procedure, by far, was a photo lineup (95.7%) (see Table 1).

It was assumed that not every sworn officer in a department would take part in the lineup procedure. Around 60% of the departments reported that they had 10 or fewer law enforcement officers who were active in lineup procedures (live or photo lineups). Around 40% of the departments had between 11 and 50 officers active in lineup procedures, with the residual having 51 or more officers active in the process.

[7] Median population was used instead of mean population, as it was a more accurate representation of the central figure. When responding to this qualitative question on the survey, many departments gave such drastic ranges (e.g. 2,600-12,000) that averaging the two would have been misleading with regard to the most accurate population parameters.

Almost 38% of responding departments reported that they have written procedures for conducting eyewitness identifications. Almost 60% of all departments responded that they *always* give the witness instructions prior to the identification process. Another 30% report that they do so at least part of the time, with 11% reporting that they *never* instruct the witness. Also, almost 94% of all responding department reported that they did not have any type of policy requiring them to inform the witness when they have made a correct identification[8].

Three Main Themes

The objective of this thesis was to gauge the adherence of Idaho law enforcement departments to nationally recommended practices in eyewitness identification. After the data were analyzed, a pattern emerged identifying three themes. The first theme is a series of questions relating to whether the respondent was a city or county agency. This independent variable was then paired with the recommended best practices to gauge the difference, if any, between city and county agencies with regard to the practices and procedures that are in place.

The second theme relates to whether or not a particular agency has a written procedure for conducting eyewitness identifications. Again, this variable was analyzed to view the relationship, if any, a written procedure may have with the recommended identification procedures. Specifically, does having a written policy determine the type of

[8] It is important to note a limitation by the use of the word "requires" in the survey presented to the departments. Even though the department may not have a policy, written or otherwise on this issue, they may still inform the witness even though they are not 'required' to do so.

procedures that are in place in Idaho departments? Are there commonalities within those departments having written procedures that do not appear in departments without them? Does it assist a department in adhering to the nationally recommended practices better than a department without a written procedure?

Lastly, officer training was paired with the recommended practices to assess how training is associated with adherence to the recommendations concerning the eyewitness identification process. Does it appear that those departments that train their officers on how to conduct eyewitness identifications are more properly in line with the nationally recommended practices, and if so, what are the implications?

It is also important to note that, due to the small sample size and the resulting low cell sizes on many of the questions involving the six recommended practices, these questions were recoded into dichotomous (no, yes) variables. It is understood that specific data was lost by collapsing the cells; however, it was important for the overall results to remain consistent throughout the data. Tables 2-6 display only the statistically significant relationships discovered after data analysis was completed.

City vs. County

Much of the analyses related to whether the department identified themselves as a city or county agency (and therefore more urban or rural). This potential relationship may explain the distribution of resources as related to manpower, budget, or the like; this distribution of resources may then impact their implementation and/or use of particular recommended practices. After a series of crosstabulations were completed, it was noted

that 'agency type' did not have a statistically significant association ($p > .10$) with the use of any of the recommended practices individually.

Written Procedures

It was essential to view what relationship, if any, having a written procedure would have with the various recommended best practices. Whether an agency had written procedures or not was independently paired with survey questions that related to whether a department observed and/or acknowledged each of the recommended practices. Over one third (37.5%) of departments reported that they have written procedures for conducting eyewitness identifications.

There was a statistically significant relationship between having written procedures and whether a department provided instructions to witnesses prior to the identification process ($\chi^2 = 3.473$, $p < .10$). When asked if witnesses are given instructions prior to the identification process, every department with a written procedure responded that they give instructions to the witness at least some of the time. Approximately 83% of departments without written procedures responded that they give the witness instructions (see Table 2). Although statistically significant, this finding may not have much substantive significance.

There is also a statistically significant relationship between written procedures and whether or not the 'fillers' comprising the lineup are chosen based on the witness' description ($\chi^2 = 4.682$, $p < .10$). Almost 94% of departments with written procedures

reported that they follow this recommendation at least some of the time compared to only 64% of departments without written procedures (see Table 3).

Officer Training

It was also believed that training of an officer on how eyewitness identifications should be conducted would relate to whether or not recommended practices are followed. The data show that officer training had a statistically significant relationship with three of the recommended practices: use of fillers based on the witness' description ($\chi^2 = 3.617$, $p < .10$), use of the sequential procedure ($\chi^2 = 3.310$, $p < .10$), and recordation of the identification procedure ($\chi^2 = 7.020$, $p < .10$).

Officer training is significantly related to whether or not a department adheres to the recommendation that a 'filler' be based on the witness' description. The majority of departments that train their officers reported that over 83% of departments with trained officers follow this recommendation at least some of the time. This finding is compared to 54.5% of departments with untrained officers who follow this recommendation (see Table 4).

There is an almost half and half split between those departments that do not use the sequential procedure and those that use it at least some of the time for those departments that train their officers. However, none of the departments with untrained officers reported ever using the sequential procedure[9] (see Table 5).

[9] There is a slight caveat with this finding. Only three (3) departments with untrained officers responded to this question and reported that they never use the sequential procedure.

Lastly, the data show that over 87% of departments that train their officers record the identification process as compared to almost 43% of departments that do not train their officers (see Table 6).

Overall and Functional Congruence Scores

One of the primary foci of this research was to ascertain the level of congruence of law enforcement agencies in the State of Idaho to the recommended practices pertaining to eyewitness identification. As previously discussed, there were two levels of congruence that were assigned to each responding department: *Overall Congruence* and *Functional Congruence*.

In order to ascertain *Overall congruence* and *Functional congruence* of the departments, it was necessary to use a compute variable in SPSS. The questions pertaining to the aforementioned recommendations were summed across all answers with a resulting departmental congruence score. Specifically, the questions on the survey that pertained to the assessment of *overall congruence* included the following:

- Instructing the witness prior to the identification procedure
- Using fillers based on witness' description
- Using double blind administration during the identification procedure
- Using the sequential procedure
- Obtaining a confidence statement after an identification is made
- Recording the identification procedure

Functional congruence is a subset of *overall congruence*. The main objective, here, is to examine acquiescence to those recommendations that affect the accuracy and validity of said identification. *Functional congruence* addresses the following:

- Instructing the witness prior to administration of the procedure
- Using fillers based on witness' description
- Using double blind administration
- Using the sequential procedure

In order to assure accuracy in the resulting score, only departments that answered all six (6) questions relating to *overall congruence* were included (N = 25), and only departments that answered all four (4) questions relating to *functional congruence* were included (N = 27). Two continuous dependant variables- *overall congruence score* and *functional congruence score*- were used in an independent samples t-test with each of the three themes to gauge the difference in means of the congruence score between the categories of the three themes above.

As previously mentioned, the data regarding the recommended practices were initially collected using ordinal responses of "never," "sometimes," "most times," and "always," and were later recoded into bivariate 'no' and 'yes' answers (see Table 7). When departments were asked how often witnesses were instructed prior to the identification procedure, almost 60% reported they 'always' instruct the witness as opposed to about 11% reporting they 'never' instruct the witness. The majority of departments (53.7%) reported that they 'sometimes' choose fillers based on the description given by the witness, compared to about 24% of departments that 'never'

follow this recommendation. A little over 24% responded that their department 'sometimes' uses the double blind procedure with the majority (72.7%) reporting they 'never' use it. With regard to how often the sequential procedure is used, half of the departments reported they employ it "sometimes," "most times," or "always," with the other 50% stating they 'never' use it. Departments were asked how often they obtain a confidence statement from the witness after the identification procedure. Over 60% of departments reported doing so "sometimes," "most times," or "always," with the residual 39% 'never' obtaining a confidence statement[10]. Lastly, almost 36% of departments reported 'always' recording the identification procedure with a little over 20% 'never' doing so.

An alternative method to identify the relationship between the three themes and congruence to the recommendations was to compute a congruence score. Even though the sample size numbered 48, there was only an average of 39 responses for each recommendations question. Given that the technique utilized to calculate the congruence scores (*overall* and *functional congruence*) required departments to respond to each of the recommendation questions, the sample size was reduced for each of these congruence scores. Twenty-five departments were successful in answering all items pertaining to *overall congruence* to the recommendations. Twenty-seven departments were successful in answering all items pertaining to the *functional congruence* score.

[10] Table 7 displays the descriptive statistics on *overall* and *functional compliance* scores. This table includes departments that answered any of the questions pertaining to the compliance scores. Therefore, the sample size contained therein will be larger than that used for the bivariate analyses since those computations require departments to report on <u>all</u> recommendations.

With regard to the extent of congruence for Idaho, the mean *overall congruence score* was 7.88 out of a possible maximum score of 18. The mean *functional congruence score* was 4.67 out of a possible maximum score of 12.

Continuous Measure of Congruence

Agency Type

A t-test was used to examine the possible relationship between the themes and the continuous measure of *overall* and *functional congruence*. Before this analysis could be done an F-test was run. This was first completed to analyze the variance in the *overall congruence* score between city and county agencies. Since the F-test was not statistically significant ($F= 2.261$, $p >.10$), then the variance in the *overall congruence* score is the same for both city and county departments and, therefore, the exact t-test was run. The exact t-test was not statistically significant ($t = 1.088$, $p >.10$), therefore, the mean *overall congruence* score of both city and county departments is not significantly different. This finding suggests that 'type of agency' has no statistical impact on *overall congruence* to recommended practices (see Table 8).

The F-test ($F = .010$, $p >.10$) for *functional congruence* displays the homogeneity of variance between the city and county departments and, therefore, the exact t-test is again run. The results of the exact t-test are summarized in Table 8 and show that there is no statistically significant difference in the mean departmental score for *functional congruence* ($t = -.048$, $p >.10$) between city and county agencies. This finding suggests that 'agency type' does not influence the *functional congruence* score of a department.

Written Procedure

Similar to the 'type of agency' t-test above, the dichotomous 'written procedure' was also paired with *overall* and *functional congruence* in an independent samples t-test to assess the difference in mean congruence scores with regard to whether or not the department had a written policy for conducting eyewitness identifications. With regard to *overall congruence*, the F test was not statistically significant ($F = .035$, $p > .10$) and, therefore, an exact t-test was run. The t-test was not statistically significant ($t = -1.296$, $p > .10$). Therefore, the mean *overall congruence score* is not statistically different for departments with written procedures compared to those without written procedures.

Similarly, a t-test was performed for the relationship between written procedures and *functional congruence*. The F test ($F = .332$, $p > .10$) displayed the homogeneity of variance between the groups. As a result, an exact t-test was performed which resulted in a statistically significant t value ($t = -1.983$, $p < .10$). Therefore, whether or not a department has a written policy for conducting eyewitness identifications impacts their resulting *functional congruence score.*

More specifically, the mean score for departments without written procedures for conducting eyewitness identifications was 3.92, whereas those departments having written procedures had a mean score of 5.63 on *functional congruence*. The difference in mean scores indicates that those departments with written procedures tend to receive a *functional congruence score* that is relatively 1.4 points higher than departments without written procedures.

Officer Training

Lastly, the dichotomous variable of 'officer training' was also paired with *overall* and *functional congruence* in an independent samples t-test to assess the difference in mean scores with regard to whether or not the department trained their officers on how to conduct eyewitness identifications.

For *overall congruence*, the F test was not statistically significant ($F = .052$, $p > .10$), indicating that the variance in the *overall congruence score* is the same for both trained and untrained officers. Therefore an exact t-test was performed. The results of the exact t-test were statistically significant ($t = -1.966$, $p < .10$), illustrating there is a statistically significant difference in the mean *overall congruence* score between those departments that train their officers and those that do not. The mean *overall congruence score* for departments that train their officers had a mean score of 8.17 whereas those departments that do not train their officers was 4.5. The difference between these mean scores shows that departments with trained officers received an *overall congruence score* that was almost 3.7 points higher than departments without trained officers.

The F test for *functional congruence* and 'officer training' was not statically significant ($F = .013$, $p > .10$) indicating homogeneity in the variance between the samples. An exact t-test was performed, which resulted in a statistically significant t score ($t = -2.774$, $p < .10$). Therefore, whether or not a department trains their officers on how to conduct eyewitness identifications is directly associated with their mean *functional congruence* score. The departments with trained officers had a mean score of 5 while departments that do not train their officers had a mean *functional congruence score*

of 2. This mean difference illustrates that those departments that train their officers on how to conduct eyewitness identifications have a *functional congruence score* that is 3 points higher, on average, than departments without trained officers.

Categorical Measure of Congruence

It is believed that there are clear distinctions of congruence. Both *overall* and *functional* congruence are further broken down into three levels of congruence; *poor, average,* and *desirable*. By using this new categorical variable from the continuous score, distinctive groups can be teased out rather than simply averaging out the extreme groups. This categorical variable was used in crosstabulation analyses with the three themes to gauge their relationship, if any, to the different levels of both *overall* and *functional congruence*.

With regard to the categorical *overall congruence* group, consisting of 25 departments, 2 (8%) attained *desirable congruence*, 20 departments (80%) were in *average overall congruence*, and 3 (12%) were in *poor overall congruence* with the recommended practices. There were 27 qualifying departments in the categorical *functional congruence* group. Of these, 1 department (3.7%) received *desirable functional congruence*, 20 departments (74%) received scores placing them in *average functional congruence*, and six (22.2%) were in *poor functional congruence*. While these analyses are tentative at best, it is important to explore potential relationships for congruence in a way that has never been attempted.

Agency Type

After crosstabulation was completed, the data show that 'type of agency' had a statistically significant association with a department's *overall congruence score* ($\chi^2 = 6.759$, $p < .10$). The results for city agencies show that 1 department (6.7%) met with *desirable congruence* and 14 departments (93.3%) were in *average congruence*. There were no county agencies that attained *desirable overall congruence*, and 5 departments (62.5%) that received *average congruence*. None of the city departments, but 3 (37.5%) of the county departments received *poor congruence* (See Table 9).

Sixteen (16) city departments and nine (9) county departments qualified for *functional congruence scores*. However, agency type had no statistically significant relationship with *functional congruence scores* ($\chi^2 = 0.646$, $p > .10$).

Written Procedures

When 'written procedures' was paired with *overall congruence score* there was no statistically significant relationship ($\chi^2 = 0.494$, $p > .10$). It can, therefore, be said that having a written procedure for conducting an eyewitness identification has no association with the resulting *overall congruence score* of the department. The same is true with regard to *functional congruence scores*. While it is approaching statistical significance, ($\chi^2 = 4.436$, $p > .10$) no relationship appears to exist between written procedures and a department's *functional congruence score*.

Officer Training

Results are similar for the relationship of 'officer training' to *overall congruence*. As Table 9 shows, there is no statistically significant relationship between whether or not a department trains its officers on how to conduct eyewitness identifications and its resulting *overall congruence score* ($\chi^2 = 3.034$, $p > .10$). Of interest, however, is the fact that there does exist a statistically significant relationship between officer training and the *functional congruence score* ($\chi^2 = 11.813$, $p < .10$). Approximately 74% of departments that train their officers were in *average functional congruence* and almost 4% were in *desirable functional congruence* with recommended practices. However, 100% of the departments that do not train their officers in eyewitness identification procedures were in *poor overall congruence*. This result is tentative, at best, because of the low number of respondents who do not train their officers.

Discussion

City vs. County

It seems that type of agency has no direct relationship to the use of any of the six recommended practices. Only one of the six practices (whether or not the department obtained a confidence statement from the witness) was approaching statistical significance. A possible explanation for the lack of statistical significance as it relates to 'agency type' could be that, as a whole, the State of Idaho can be considered a rural state. The entire state had an estimated population of a little over 1.5 million people in 2008[11]

[11] Resident population for 2000 Census was 1,293,953.

with a respective geographic area of around 82,727 square miles (U.S. Census Bureau, Retrieved 27 February, 2010). Therefore, attempting to differentiate between city and county (urban and rural) may be a moot point. Given a larger sample size, the analysis might be stronger and might yield statistical significance.

Written Procedures

As can be seen in the frequencies sections, the majority of departments reported that they do not have written procedures for conducting eyewitness identifications. Even still, the number of agencies with written procedures (almost 38%) was more than expected. When the data were examined, it could be concluded that having a written procedure directly relates to whether a witness is instructed prior to the identification procedure. In fact, every department that has a written procedure gives the witness instructions at least some of the time.

There is a difference of about 17% between the groups that give the witness instructions and whether or not they have a written procedure. Despite this difference, both groups still follow this recommendation a considerable amount of the time. Every department with a written procedure provided some form of instructions to the witness; those departments without written procedures provided them to the witness over 80% of the time. This finding suggests that, even though having a written procedure directly impacts whether a witness is instructed prior to the identification process, the use of this recommendation appears to be a regular practice among responding Idaho departments even without written procedures.

In spite of this, the recommendation of instructing the witness is substantively important. Even witnesses who have been instructed can still feel that if they are brought into a police department that it must be for a reason; that the police would not have brought them in unless they had "the guy," thereby increasing the pressure they feel to pick someone (J. Thompson-Cannino, personal communication, August 28, 2009). It is assumed that those feelings are amplified when the witness is not given instructions. Given this phenomenon, there is an added need to emphasize the possibility that the suspect may not be present in the lineup.

Relatedly, it is recommended that the 'fillers' comprising the lineup be based on the description given by the witness. If the witness' description of the suspect is correct, then there is a greater likelihood that the suspect will appear in the lineup. If, however, the persons comprising the lineup have been chosen based not on the witness' description but the description of the person that the police believe may have committed the crime, then the lineup is biased from the beginning.

The data show that departments with written procedures follow this recommendation with greater frequency than departments without written procedures. There is a difference of about 30% between these two groups. It is of interest to note, however, that, although the department does not have a written procedure, they are still following the recommendation the majority of the time. These results suggest that, as with the recommendation of instructing the witness, it is a procedure that is more commonly known and accepted and, therefore, more regularly used regardless of whether a department has a written procedure or not.

Another possible explanation for the differences within this group is a difference in exposure to outside resources. Perhaps some departments are more greatly exposed to outside knowledge and expertise than the others. There may be differences in the age and education levels between the officers within these departments. One would assume that if this were true, then that department would be more likely to have a procedure manual. However, instead of taking the time and resources to create and compile one, departments may have chosen to simply incorporate the outside knowledge and practices instead.

Lastly, while not statistically significant, one variable contained within this group that approached significance was that of recording the identification procedure. Given a larger sample size, a statistically significant relationship may have arisen. Overall, the implications of these findings show that when a department has a written procedure, they are more likely to follow two, and possibly three, out of the six nationally recommended practices. Also, these departments with written procedures are following two of the four practices that put them in line with *functional congruence*.

Officer Training

It was hypothesized that those departments that train their officers would be more closely in line with the nationally recommended practices. Evidence from the analyses seems to support this. Officer training had a direct impact on the use of three out of the six nationally recommended practices, with an additional practice nearing statistical significance.

While the numbers on the use of the sequential procedure are not as high as one would hope, departments with trained officers reported using it over 55% of the time. Within the departments with trained officers there is only about a 10% difference between those that use the sequential procedure and those that do not. This finding suggests that, while officer training relates to the use of the sequential procedure, this relationship is not as substantively strong given that only one-half of departments use the sequential procedure.

The results show that trained officers follow the 'filler' recommendation the majority of the time (83.3%). However, there is still only about a 30% difference between the trained and untrained officer that follow this recommendation. Along with this, the untrained officers also follow the recommendation the majority of the time, similar to trained officers.

Of interest, is the examination between the 'filler' recommendation and use of the 'sequential procedure' within the 'officer training' category. With regard to trained officers, there is an almost 30% difference between departments that follow these two recommendations. When discussing untrained officers, there is a difference of over 50%. This again lends itself to the notion that perhaps the sequential procedure is not as well known, and/or accepted, within Idaho law enforcement departments.

Finally, there is examination of 'officer training' and 'recording the identification procedure.' While recording the identification process may not increase the overall validity of the identification itself, it allows others vested in the case to review the events that occurred and to gauge the accuracy of the witness' identification. Officer training,

again, had a statistically significant relationship with whether or not a department recorded the identification process. Also, trained officers record the identification process twice as often as departments with untrained officers. There is an almost 45% difference between trained and untrained officer and their recordation of the identification procedure.

It is also interesting to again discuss the category of untrained officers who follow the recommendation. Other recommendations that have been discussed reveal that, while a department may not train its officers or do not have a written procedure, they still adhere to the recommendation. With regard to recording the identification procedure, the same does not hold true. The majority of departments with untrained officers *do not* record the identification procedure.

It is hypothesized that the use of the other recommendations discussed is dependant upon the department's acceptance and/or knowledge of that recommendation. Given that over 87% of departments with trained officers record the identification procedure, along with almost 43% of departments with untrained officers, it is safe to assume that this recommendation is known to Idaho law enforcement departments.

It was, however, assumed that, out of all of the statistically significant variables discussed, recording the identification procedure would have been more likely to be followed than any other recommendation except perhaps 'instructing the witness.' This assumption is based on the premise that recordation of the identification procedure can protect law enforcement agencies from accusations of misconduct during the process (Eyewitness Identification Resource Guide, 2007). It can also assist the prosecution in

their case against the defendant, as they are able to illustrate the exact steps and methods by which the procedure was administered, as well as the suspect that the witness identified (USDOJ, 1999). Given that this hypothesis does not appear to be supported, there is a need to explore other possible explanations, one of which is that some departments could be more resistant to change than others.

Departments may feel that by recording the procedure their individual department will be subject to scrutiny. Another explanation could involve issues regarding the method by which the department believes they are expected to record the process (paper and pencil versus video recording). Given that there is one known department in Idaho without email capability, it is not beyond saying that some departments may not have the budget to sustain the purchase of video equipment. Therefore, departments without the fiscal capacity to purchase video equipment, and their assumption that this is the only acceptable method to record the identification process, may be less likely to adhere to this specific recommendation.

Reexamining the overall results of this theme, it is worth noting that officer training appears to be associated with the use of three out of the six recommended practices pertaining to *overall congruence* and two of the four recommended practices that are in line with a department's *functional congruence*.

There seems to be a pattern wherein those departments that have written procedures, as well as departments that train their officers, are far more inclined to follow nationally recommended practices. It could be that state police and sheriff department

administrators are increasingly proactive in seeking out new and better techniques to follow.

Overall and Functional Congruence Scores

Continuous and Categorical Measures

Overall congruence is comprised of all six (6) of the nationally recommended best practices in eyewitness identification. *Functional congruence* consists of four (4) of those six practices- the four elements that are needed in order to obtain a valid and reliable identification[12]. It is also important to note the relationship of the three themes (agency type, written procedures, and officer training) to these types of congruence.

Agency Type. With regard to the continuous measure for congruence scores and 'agency type,' the relative importance of the components comprising *overall* and *functional congruence* appear to be the same regardless of the type of agency a department belongs to. It is interesting, however, that while 'agency type' does not have a statistically significant association with the use of any individual recommended practice, or on the continuous measure, it does relate to categorical *overall congruence* (see Table 10). One possible explanation could be that the categorical measure gives a more accurate depiction of what is actually occurring within the continuous measure. Perhaps, once the continuous measure is broken down into categories, it is possible to better assess where agencies are placed as a result of the recommendations they are following. Another

[12] The two elements removed from consideration for the *functional congruence* group (obtaining a confidence statement from the witness and recording the identification procedure) may not assist in ensuring that the actual identification procedure is valid on its face.

explanation could be the lack of variability within the dependant variable as the majority of city (14 out of 15) and county agencies (5 out of 8) present with average congruence.

Written Procedures. There is no statistical significance associated with the mean *overall congruence score* on the continuous measure for departments with written procedures. However, whether or not a department had a written procedure for conducting eyewitness identifications was related to their *functional congruence score.* Departments with written procedures received a *functional congruence score* that was relatively 1.4 points higher than departments without written procedures.

With regard to 'written procedure' and the categorical level of congruence, there was no statistically significant relationship to either *overall* or *functional congruence*. However, *functional congruence* was nearing statistical significance. Therefore, perhaps with a larger sample size, a statistically significant relationship might exist.

Officer Training. Officer training had a statistically significant association with both levels of the continuous measure of congruence. Specifically, departments with trained officers received *overall congruence scores* that were over 3.6 points higher than departments with untrained officers. For *function congruence*, the mean difference resulted in scores that were 3 points higher for departments with trained officer than for those departments that did not train their officers. Unlike the relationship of written procedures, this result *is* substantively significant.

With regard to the categorical measure, officer training did not relate to the level of a department's *overall congruence*, but it did relate to the level of *functional congruence*. This result is significant because, while all of the nationally recommended practices are

important in their own way, it is argued here that the four parts comprising *functional congruence* specifically focus on a more valid identification. Through this, the data show that 'officer training' is the only measure here that had a directly association to a department's level of *functional congruence*, which is the heart of this study[13].

Throughout this research, 'officer training' was the only area that had a consistent statistically significant relationship with both *overall* and *functional congruence scores*. In an attempt to better understand the relationship between officer training and congruence, the qualitative data from the survey were analyzed. Overall, 30 of the 37 responding departments provided useful explanations regarding the type of training that officers are receiving. According to these responses, the majority of departments rely on Field Training Officers to convey the accepted procedures for eyewitness identification training. Most of these departments reported that the training was relatively basic in nature and seemed to be a small part of the overall in-house training that the officer receives during this initial after-hire period. The next most common responses reported that the only training received was through Idaho Peace Officer Standards and Training (hereafter P.O.S.T.) prior to the officer being hired or that there was an allotted amount of time given specifically to eyewitness identification training. This time ranged from a single one to two hour training, with a few of the departments stating that they require an annual 30 minute training to review photo lineups. A few of the departments reported that they provided 'optional refresher courses' that were sent to all officers as bulletins. Still other departments reported that their training is provided to them through the prosecutor's

[13] While this result is statistically significant, the 'officer training' variable is approaching a constant. Perhaps, given a larger sample size this limitation could be avoided.

office or that the State prepares their lineups for them. Lastly, there was one department that reported that it did not have 'training' per se, but instead have their officers read the department policy on eyewitness identification procedure.

Strengths and Limitations

There are a few limitations of this study. First, reliability and validity in this research are dependent upon the accuracy of the person taking the survey. One known threat to validity is the social desirability effect (Babbie, 2004). Social desirability occurs when questions on the survey will be answered in a more positive manner than they otherwise would in hopes that the researcher will perceive the department in a better light (Babbie, 2004). However, because the survey was confidential, this threat to validity may have been reduced.

Another limitation is the self-report measure of using Likert scales. By using a Likert scale, there is more subjectivity in the answers to the questions as one person's definition of "sometimes" or "most times" is different from another's. An additional limitation of using survey research is that an imperative question may not have been added to the distributed list. In an attempt to avoid these issues, both qualitative and quantitative questions were used within the survey. These qualitative portions allowed for a more in-depth analysis of the particular questions they related to. Also, a preliminary survey was distributed to four people who are either academics in the field of criminal justice, actively involved in law enforcement, or work closely with issues of eyewitness misidentification.

While precautionary measures were taken, another limitation of this study is that the survey instrument failed to account for the fact that a department may not use live lineups. On this particular question, departments were asked how many individuals they used to comprise their live lineups. The list of possible answers ranged from '3' to '8 or more.' A problem arose when no option was given for Idaho departments that do not ever use live lineups. As a result there was not a high response rate to this question. This same issue applies to the equivalent question regarding photo arrays.

Similarly, it is important to briefly discuss the crosstabulation of 'written procedure' and 'fillers.' One issue that must be addressed with regard to this particular data is the strength of the relationship. Only 16 respondents reported having a written procedure as compared to 25 stating they do not. While it is statistically significant, it may not be substantively significant without a larger sample size[14].

It was hoped that the reliability would be increased as the surveys were sent to the heads of the department. The department heads, theoretically, should be the most familiar with the current procedures of the department. Even if the task of completing the survey was passed to a subordinate, it is assumed that the department head entrusted the task to someone who could complete the survey in a direct and thorough manner.

It is always best, albeit not always possible, to triangulate data used in a survey. State records might provide contextualized answers to questions not provided through the survey. However, research on this topic has never been performed in the State of Idaho.

[14] Referring to Table 1, the reader will see that the respective numbers for departments with written procedures and those without is actually 18 and 30. However, because of the specific selection requirement to answer all questions related to the recommendations, not all cases were represented.

Therefore, it is believed that there are no state records that assess individual department procedures in this way.

Finally, sample size is a concern. Even though a census included all police and sheriff departments in the State of Idaho, the total number of agencies is still relatively small. Additionally, even though a census was attempted, it was not achieved; therefore, the sample size is smaller yet. As a result, the information gathered in this study is not necessarily generalizable to other states. The benefit of this study, though, is that this research has never been conducted and is exploratory in nature. While it may not be generalizable to other states, due to the low sample size and the uniqueness of the State of Idaho, it is a template for future research both here and in other rural states.

Future Research

Future research in this area should attempt to further examine the relationship between the three themes and congruence to the recommended practices of eyewitness identification. Obtaining additional demographic information such as number of male and female officers and their education level may assist in defining possible extraneous variables. If budgetary information had been requested from the departments, insight as to the financial resources afforded each officer, as well as the difference in resources between city and county departments could have been examined. It would also have given insight into whether a department's budget relates to the use of recommended practices.

Another area that was not examined was how the three themes may interact with each other. For example, it would be interesting to examine whether there is a relationship between those departments with written procedures that also train their officers**.** Additionally, 'agency type' could be paired with 'officer training' to gauge if agency type impacts training. Finally, interactions could be explored between the paired themes (e.g., 'agency type' + officer training) and run this against each of the recommended practices.

Another important area of research would involve the examination of the policy manuals from the departments that reported having written procedures. One could assess the degree to which the procedure manuals encompass the recommended practices discussed herein. One could also investigate the differences between the procedures that a particular manual outlines and what the department actually practices. Further, examination of specific practices employed between departments with and without manuals would also be interesting as a means to assess crossover of certain procedures.

It could be posited that mandating procedure manuals for eyewitness identifications is beneficial to ensure that misidentifications do not occur. Perhaps, however, this is not necessary in the State of Idaho. The data here show that training is the main component in achieving higher congruence scores. Because of this relationship, the final future research recommendation would be an in-depth analysis of the training that is in place in the State of Idaho. It may also be useful to examine the level of lateral transfers from other states. Officers transferring from larger and/or more diverse urban areas could be one of the extraneous factors influencing the use of specific recommended practices.

Given that training appears to be the greatest predictor of adherence to both nationally recommended practices and *functional congruence*, it would also be useful to cross-reference each department individually in Idaho with the training that they conduct, either in-house or otherwise. Then, each of these departments could be matched up with their *overall* and *functional congruence* scores. Analysis of the trends between those departments with the highest congruence scores could create a blueprint for training in the rest of the departments in Idaho.

CONCLUSIONS

There seems to be a level of progression throughout the themes wherein training has greater relevance than procedure manuals, which have greater relevance than agency type. Agency type had little or no impact on any individual recommendation or on congruence as a whole. Next there is the category of whether or not a department has a written procedure. This element relates to two of the six recommended practices as well as a department's *functional congruence score*, but has no relationship to a department's *level of congruence*. This is not to say that having a written procedure is not important or relevant. A larger sample and triangulated data analysis may more strongly support the importance of written procedures.

The written procedures that are being used in the State of Idaho need to be analyzed to check for common themes. If these manuals are found to be useful and necessary, a standardized sample procedure manual for conducting eyewitness identifications can be presented to state legislators for approval. Before one can conclude that a standardized procedure manual be written, one must examine the utility of written procedures and their relation, if any, to congruence with best practices in Idaho in a more precise way.

Lastly, there is the category of 'officer training.' This element was associated with the use of three of the six nationally recommended practices, a department's *overall* and *functional congruence scores*, and the department's categorical *functional congruence*. Overall, it would appear that 'officer training' is more strongly associated with an agency's congruence than having a written procedure. Therefore, it might be concluded

that the training of officers is the driving force behind a department's congruence to the recommended practices.

The overall training that officers are receiving appears to be minimal and there is room for improvement within the congruence scores. As training in eyewitness identification procedures appears to have an impact on departmental congruence, it may have an even greater effect if time and quality of training is increased and/or improved.

One can assume that law enforcement agencies will continue to use eyewitness evidence. As of the conclusion of this thesis research, 250 inmates nationwide have been exonerated through the use of post-conviction DNA testing (Innocence Project, 2009a). In 75% of those cases, eyewitness identifications were either the most substantial or sole piece of evidence against the defendant (Eyewitness Resource Guide, 2007). This finding asserts that eyewitness misidentification is "the single greatest cause of wrongful convictions nationwide" (Innocence Project, 2009b). It is for this reason that it is so important to ensure that precautionary measures are taken in an effort to preserve this evidence. In an attempt to make that happen, further investigation into the specific variables that relate to congruence is imperative to assess, enable, and promote the necessary reforms to eyewitness identification procedure in the State of Idaho.

REFERENCES

Babbie, E. (2004). *The practice of social research* (10th Ed.). Belmont, CA: Thompson Wadsworth.

Behrman, B.W. & Davey, S.L. (2001). Eyewitness identification in actual criminal cases: An archival analysis. *Law and Human Behavior*, *25*(5), 475-491.

Bothwell, R.K., Brigham, J.C. & Malpass, R.S. (1989). Cross-racial identification. *Personality and Social Psychology Bulletin*, *15*(1), 19-25.

Bradfield, A. & McQuiston, D.E. (2004). When does evidence of eyewitness confidence inflation affect judgments in a criminal trial? *Law and Human Behavior*, *28*(4), 369-387.

Deffenbacher, K.A. (1994). Effects of arousal on everyday memory. *Human Performance*, *7*(2), 141-161.

Deffenbacher, K.A., Bornstein, B.H., Penrod, S.D., & McGorty, E.K. (2004). A meta-analytic review of the effects of high stress on eyewitness memory. *Law and Human Behavior*, *28*(6), 687-706.

Dysart, J.E. & Lindsey R.C.L. (2001). A preidentification questioning effect: Serendipitously increasing correct rejections. *Law and Human Behavior*, *25*(2), 155-165.

Ellis, H. D. (1984). Practical aspects of face memory. In G. Wells & E. Loftus (Eds.), *Eyewitness Testimony* (pp. 12-37). New York: Cambridge University Press.

Ellis, H.D. & Deregowski, J.B. (1981). Within-race and between-race recognition of transformed and untransformed faces. *The American Journal of Psychology*. *94*(1), 27-35.

Eyewitness Identification Resource Guide: A primer for reform. (2007). New York, NY: Innocence Project.

Garrioch, L. & Brimacombe, C.A.E. (2001). Lineup administrators' expectations: Their impact on eyewitness confidence. *Law and Human Behavior*, *25*(3), 299-315.

Hinz, T. & Pezdek, K. (2001). The effect of exposure to multiple lineups on face identification accuracy. *Law and Human Behavior*, *25*(2), 185-198.

Innocence Project. (2009a). News and Information: "Facts on Post-Conviction DNA Exonerations." New York: The Benjamin N. Cordozo School of Law at Yeshiva University. http://www.innocenceproject.org/Content/351.php

Innocence Project. (2009b). Understanding the Causes: "Eyewitness Misidentification." New York: The Benjamin N. Cordozo School of Law at Yeshiva University. http://www.innocenceproject.org/understand/Eyewitness-Misidentification.php

Kleider, H.M. & Goldinger, S.D. (2001). Stereotyping ricochet: Complex effects of racial distinctiveness on identification accuracy. *Law and Human Behavior*, *25*(6), 605-627.

Landecker, W.S. (1941). Criminology in Germany. *Journal of Criminal Law and Criminology (1931-1951)*, *31*(5), 551-575.

Leippe, M.R. & Wells, G. (1995). Should we be partial to partial identification?: Commentary on the Levi-Jungman proposal. *Criminal Justice and Behavior*. *22*(4), 373-385.

Levi, A.M. & Jungman, N. (1995). The police lineup: Basic weaknesses, radical solutions. *Criminal Justice and Behavior*, *22*(4), 347-372.

Loftus, E. F. (1979). *Eyewitness testimony*. Cambridge: Harvard University Press.

Malpass, R.S. & Devine, P.G. (1981). Eyewitness identification: Lineup instructions and the absence of the offender. *Journal of Applied Psychology*, 66, 482-489.

Meissner, C.A. & Brigham, J.C. (2001). Thirty years of investigating the own-race bias in memory for faces: A meta-analytic review. *Psychology, Public Policy, and Law*. *7*(1), 3-35.

Pepinsky, H.E. (1970). A theory of police reaction to Miranda v. Arizona. *Crime & Delinquency*, *16*(4), 379-392.

Pickel, K.L. (1998). Unusualness and threat as possible causes of "weapon focus." *Memory*, *6*(3), 277-295.

Pickel, K.L., Ross, S.J., & Truelove, R.S. (2006). Do weapons automatically capture attention? *Applied Cognitive Psychology, 20*, 871-893.

Qualtrics. (n.d.) Retrieved November 15, 2008, from www.qualtrics.com.

Schuster, B. (2007). Police lineups: Making eyewitness identification more reliable. *National Institute of Justice*, 258, 2-9.

Shaw, J.S. III & McClure, K.A. (1996). Repeating postevent questioning can lead to elevated levels of eyewitness confidence. *Law and Human Behavior, 20*(6), 629-653.

Shriver, E.R., Young, S.G., Hugenberg, K., Bernstein, M.J. & Lanter, J.R. (2008). Class, race, and the face: Social context modulates the cross-race effect in face recognition. *PSPB*, *34*(2), 260-274.

Simmons v. United States, 390 U.S. 377 (1968).

Skolnick, P. & Shaw, J.I. (2001). A comparison of eyewitness and physical evidence on mock-juror decision making. *Criminal Justice and Behavior*, *28*(5), 614-630.

Sporer, S.L., Trinkl, B., Guberova, E. (2007). Matching faces: Differences in processing speed of out-group faces by different ethnic groups. *Journal of Cross-Cultural Psychology*, *38*(4), 398-412.

Stanny, C.J. & Johnson, T.C. (2000). Effects of stress induced by a simulated shooting on recall by police and citizen witness. *The American Journal of Psychology*, *113*(3), 359-386.

State of Idaho v. Sarah Kathleen Pearce. 192 P.3d 1065 (2008).

Steblay, N. (1992). A meta-analytic review of the weapon focus effect. *Law and Human Behavior*, 16, 413-424.

Steblay, N. (2006). Reforming eyewitness identification: Cautionary lineup instructions; weighing the advantages and disadvantages of show-ups versus line-ups. *Cordozo Public Law, Policy, and Ethics Journal*, *4*(2), 381-413.

Steblay, N., Dysart, J., Fulero, S. & Lindsay, R.C.L. (2003). Eyewitness accuracy rates in police showups and lineup presentations: A meta-analytic comparison. *Law and Human Behavior*, *27*(5), 523-540.

U.S. Census Bureau. Retrieved 27 February, 2010. *State and county QuickFacts: Idaho*. http://quickfacts.census.gov/qfd/states/16000.html

USDOJ. (1999). *Eyewitness evidence: A guide for law enforcement* (NCJ Publication No. 178240). Washington, DC: Author.

Walsh, A. (2009). *Biology & Criminology: The biosocial synthesis.* New York: Routledge.

Wells, G.L. (1978). Applied eyewitness-testimony research: System variables and estimator variables. *Journal of Personality and Social Psychology*, 36, 1546-1557.

Wells, G.L. (1984). The psychology of lineup identifications. *Journal of Applied Social Psychology*, *14*(2), 89-103.

Younger, E.J. (Fall 1966). Results of a survey conducted in the District Attorney's office of Los Angeles County regarding the effect of Miranda decision upon the prosecution of felony cases. *American Law Quarterly*, pp. 32-39.

APPENDIX A

Form Letter Sent to Chiefs of Police

DATE

Address
Address
Address

Dear Chief _____:

My name is Nichole Gerhard, and I am a graduate student at Boise State University in the Criminal Justice Department. I am currently working on my master's thesis for which I am conducting an exploratory study of eyewitness identification procedures in the State of Idaho. I have received permission from the Institutional Review Board to collect data using a survey instrument.

I am writing to ask for your assistance in gathering information regarding the various eyewitness identification procedures used in your department. Within one week from now, you will receive an email with a link to Qualtrics, an online surveying tool. You will be presented with at a short 34 question survey consisting of multiple choice questions and a few open-ended questions. It would be greatly appreciated if you could complete the survey no later than Friday August 14th, 2009.

Please note that the identity of your department will remain completely confidential, and this request for information is completely voluntary. None of your identifying information will be reported in the final write-up of the material. Also, all information associated with your individual department will be kept under lock and key within a locked room on university property. I will be the only person who will have access to the materials.

The information you submit will aid in understanding the state of affairs regarding identification procedures and policies in the State of Idaho. I would greatly appreciate your participation in this survey. If you have any questions or concerns, I can be contacted at nikkigerhard@u.boisestate.edu or at (208) 283-8064. Should you wish to verify any of the above information, please contact my advisor, Dr. Jeremy Ball, at (208) 426-3769.

Sincerely,

Nichole J. Gerhard
Graduate Student, Boise State University
Criminal Justice Department
1910 University Drive
Boise, ID 83706-1955

APPENDIX B

Form Letter Sent to Sheriffs

DATE

Address
Address
Address

Dear Sheriff _____:

My name is Nichole Gerhard, and I am a graduate student at Boise State University in the Criminal Justice Department. I am currently working on my master's thesis for which I am conducting an exploratory study of eyewitness identification procedures in the State of Idaho. I have received permission from the Institutional Review Board to collect data using a survey instrument.

I am writing to ask for your assistance in gathering information regarding the various eyewitness identification procedures used in your department. Within one week from now, you will receive an email with a link to Qualtrics, an online surveying tool. You will be presented with at a short 34 question survey consisting of multiple choice questions and a few open-ended questions. It would be greatly appreciated if you could complete the survey no later than Friday August 14th, 2009.

Please note that the identity of your department will remain completely confidential, and this request for information is completely voluntary. None of your identifying information will be reported in the final write-up of the material. Also, all information associated with your individual department will be kept under lock and key within a locked room on university property. I will be the only person who will have access to the materials.

The information you submit will aid in understanding the state of affairs regarding identification procedures and policies in the State of Idaho. I would greatly appreciate your participation in this survey. If you have any questions or concerns, I can be contacted at nikkigerhard@u.boisestate.edu or at (208) 283-8064. Should you wish to verify any of the above information, please contact my advisor, Dr. Jeremy Ball, at (208) 426-3769.

Sincerely,

Nichole J. Gerhard
Graduate Student, Boise State University
Criminal Justice Department
1910 University Drive
Boise, ID 83706-1955

APPENDIX C

First Email and Consent to Police Chiefs and Sheriffs

Dear Sir or Miss;

You recently received a letter in the mail asking you to participate in an online survey regarding eyewitness identification procedure in the State of Idaho. I am finishing my last semester of my Master's at Boise State University and I would be greatly appreciative if you would assist me in the completion of this exploratory research for my thesis.

I would like to remind you again, that all of your answers will remain completely confidential. Any identifiable characteristics pertaining to your department will not be presented in the paper. All of the information is strictly confidential and only myself and Dr. Jeremy Ball will have access to any identifiable information. You are free to decline to be in this study, or to withdraw from it at any point.

By completing the survey, you are giving your consent to participate in this study and for your answers to be used in compiling a thesis on the status of eyewitness identification procedures in the State of Idaho.

Please follow the link below. This will take to you to Qualtrics, an online surveying tool, where you can complete the survey.

Thank you so much for your time and assistance in this research. If you have any questions or problems regarding the survey please do not hesitate to contact me. I can be reached via email at nikkigerhard@u.boisestate.edu or by phone at (208) 283-8064.

Sincerely,

Nikki Gerhard
Boise State University
Graduate Assistant, Criminal Justice Department
1910 University Drive
Boise, ID 83706-1955
nikkigerhard@yahoo.com
208.283.8064

APPENDIX D

Survey Sent Electronically to Police and Sheriff Departments Via Qualtrics

1.) Approximately, how many staff members (both sworn and non-sworn) are in your department?
   a. 0-10
   b. 11-20
   c. 21-50
   d. 51-100
   e. 100+

2.) Approximately, how many sworn officers are in your department?
   a. 0-10
   b. 11-20
   c. 21-50
   d. 51-100
   e. 100+

3.) Approximately, how many law enforcement officers are active in lineup procedures (live and photo)?
   a. 0-10
   b. 11-20
   c. 21-50
   d. 51-100
   e. 100+

4.) Is your agency:
   a. City
   b. County

5.) Approximately, what is the population of the area that your department covers?

   _____

6.) Does your department have a policy, written or unwritten, that requires officers to tell the witness whether they have made a correct identification of the suspect?
   a. No
   b. Yes

7.) Do you have any written procedures for conducting eyewitness identifications?
   a. No
   b. Yes

8.) Are officers trained on how they should conduct eyewitness identifications?
   a. No
   b. Yes

9.) If training is given, please explain the training given (e.g., method of training, length of training, etc.) to the best of your ability.

10.) How often are witnesses given instructions (written or unwritten) prior to the identification process?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

11.) If you give instructions to the witness, please explain.

12.) Are any instructions given to the suspects composing the lineup?
   a. No
   b. Yes

13.) If instructions are given to the suspects, please explain.

14.) Generally, where is the suspect placed in the lineup?
   a. 1st position
   b. Middle position
   c. Last position
   d. Random

15.) What type of identification process is most commonly used in your department?
   a. 1st position
   b. Middle position
   c. Last position
   d. Random

16.) Generally, how many individuals are used in your department's photo lineups?
   a. 3
   b. 4
   c. 5
   d. 6
   e. 7
   f. 8 or more

17.) Generally, how many individuals are used in your department's live lineups?
   a. 3
   b. 4
   c. 5
   d. 6
   e. 7
   f. 8 or more

18.) How are 'fillers' selected for your photo/live lineups?
   a. They match the description of the suspect
   b. They match the description given by the witness
   c. Other _____

19.) How often are fillers chosen based on the description of the suspect?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

20.) How often are fillers chosen based on the description given by the witness?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

21.) Generally, how does your department conduct lineups?
   a. Simultaneously
   b. Sequentially
   c. Blind simultaneous
   d. Blind sequential
   e. Simultaneously and sequentially
   f. Blind simultaneous and blind sequential

22.) How often does your department use the simultaneous identification procedure?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

23.) How often does your department use the sequential identification procedure?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

24.) How often does your department use the double blind process?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

25.) In instances where the witness heard the suspect talk, are suspects required to give a voice sample?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

26.) Who decides what the suspect in the lineup will say?
   a. Lineup administrator
   b. Witness
   c. Other _____

27.) How often do you record the identification process?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

28.) How do you record the identification process?
   a. Audio recording
   b. Video recording
   c. Written statement from officer
   d. Combination of audio and written
   e. Combination of video and written

29.) How often does your department inform the witness if their identification is correct?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

30.) How often does your department obtain a confidence statement from the witness?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

31.) What scale does your department use for the confidence statement?
   a. Percentage (1-100%)
   b. Scale (1-10)
   c. Scale is not specified, but completed in witness' own words
   d. Other _____

32.) How often are multiple lineups shown to the same witness?
   a. Never
   b. Sometimes
   c. Most times
   d. Always

33.) Generally, which multiple lineups are utilized?
   a. Multiple photo lineups
   b. Multiple live lineups
   c. Photos and live
   d. Photos and showups
   e. Live lineups and showups
   f. Photo, live lineups, and showups

34.) How often are multiple witnesses shown lineups together?

a. Never
b. Sometimes
c. Most times
d. Always

APPENDIX E

Email Sent to Departments That Had Not Completed the Survey

After a Two-Week Period

Dear Sir or Ms:

Two weeks ago you received a letter in the mail asking you to participate in an online survey to facilitate the completion of my Master's thesis. One week ago you received an email with a link to that online survey. My records show that you have not yet completed this survey.

My thesis research is coming to an end and I would be very grateful if you would assist me by contributing your department's information. I would like to remind you again that all of your department's information will be kept in the strictest confidence. If possible, please complete the survey no later than Friday August 14, 2009. If you are not directly able to complete the survey, please pass it on to someone with comparable knowledge of the use of eyewitness identification procedure in your department. Should you wish to verify any of the above information, please contact my advisor, Dr. Jeremy Ball, at (208) 426-3769.

Thank you for your time and I hope to hear from your department soon.

Sincerely,

Nikki Gerhard
Boise State University
Graduate Student, Criminal Justice Department
1910 University Drive
Boise, ID 83706-1955
nikkigerhard@yahoo.com
208.283.8064

APPENDIX F

Conceptual Terms Used in Eyewitness Identification Procedure

Conceptual Terms

Concept	Definition
Administrator	The person conducting the show-up, photo array, or live lineup.
Double blind	When the administrator does not know which lineup participant is the suspect.
Eyewitness	A person who observes another person at or near the scene of the offense.
Filler	Either a person, or a photograph of a person, who is not the suspect but is included in the lineup procedure.
Identification Procedure	A photo array, live lineup, or showup.
Instructions	Directives provided to the eyewitness before the eyewitness identifications procedure begins.
Live lineup	An identification procedure in which the suspect and fillers are physically displayed to an eyewitness for the purpose of identification.
Photo array	An identification procedure where one photograph of the suspect, and a number of other photographs comprised of fillers, are displayed to an eyewitness for the purpose of identification.
Procedure	"A series of steps followed by a regular definite order" (Merriam-Webster Online, October 16, 2008).
Sequential Lineup	An identification procedure in which the eyewitness views only one participant at a time. The witness is shown all participants even if an identification have been made prior to completion of the procedure.
Show-up	An identification procedure where an eyewitness is presented with a single suspect instead of multiple people as would be done in a lineup.
Simultaneous lineup	An identification procedure in which the eyewitness views all of the participants at the same time.

APPENDIX G

Tables 1 Through 10

Table 1

Frequencies

		N	VALID PERCENT
Is your agency?			
	City	34	70.8
	County	14	29.2
How many sworn officers do you have in your department?			
	0-10	18	36.7
	11-20	11	22.4
	21-50	11	22.4
	51-100	4	8.2
	100+	5	10.2
Approximately how many law enforcement officers are active in lineup procedures (live and/or photo)?			
	0-10	30	62.5
	11-20	6	12.5
	21-50	9	18.8
	51-100	2	4.2
	100+	1	2.1
Does your department have a policy, written or unwritten, that requires the officer to tell the witness they have made a correct identification of the suspect?			
	No	45	93.8
	Yes	3	6.3
Do you have any written procedures for conducting eyewitness identifications?			
	No	30	62.5
	Yes	18	37.5
How often are witnesses given instructions (written or unwritten) prior to the identification process?			
	Never	5	10.6
	Sometimes	4	8.5
	Most times	10	21.3
	Always	28	59.6

Table 1 continues

Table 1: Frequencies (Continued)

		N	VALID PERCENT
How often are 'fillers' chosen based on the description given by the witness?			
	Never	10	24.4
	Sometimes	22	53.7
	Most times	8	19.5
	Always	1	2.4
How often does your department use the sequential identification procedure?			
	Never	16	50.0
	Sometimes	12	37.5
	Most times	2	6.3
	Always	2	6.3
How often does your department use the double blind procedure?			
	Never	24	72.7
	Sometimes	8	24.2
	Most times	1	3.0
	Always	0	0.0
How often do you record the identification process?			
	Never	8	20.5
	Sometimes	7	17.9
	Most times	10	25.6
	Always	14	35.9
How often does your department inform the witness if their identification is correct?			
	Never	10	24.4
	Sometimes	19	46.3
	Most times	5	12.2
	Always	7	17.1
How often does your department obtain a confidence statement from the witness?			
	Never	16	39.0
	Sometimes	11	26.8
	Most times	4	9.8
	Always	10	24.4

Table 2

Written Procedures and Witness Instructions

	Are witnesses given instructions (written or unwritten) prior to the identification process?			
Do you have any written procedures for conducting eyewitness identifications?	*No*		*Yes*	
	N	%	N	%
No	5	17.2	24	82.8
Yes	0	0.0	18	100.0

$\chi^2 = 3.473$*
$p < .10$

Table 3

Written Procedures and 'Fillers'

	Are 'fillers chosen based on the description given by the witness?			
Do you have any written procedures for conducting eyewitness identifications?	*No*		*Yes*	
	N	%	N	%
No	9	36.0	16	64.0
Yes	1	6.3	15	93.8

$\chi^2 = 4.682$*
$p < .10$

Table 4

Officer Training and 'Fillers'

	Are 'fillers chosen based on the description given by the witness?			
Are officers trained on how they should conduct eyewitness identifications?	*No*		*Yes*	
	N	%	N	%
No	5	45.5	6	54.5
Yes	5	16.7	25	83.3

$\chi^2 = 3.617$*
$p < .10$

Table 5

Officer Training and Sequential Procedure

	Do you use the sequential procedure?			
Are officers trained on how they should conduct eyewitness identifications?	*No*		*Yes*	
	N	%	N	%
No	3	100.0	0	0.0
Yes	13	44.8	16	55.2

$\chi^2 = 3.310$*
$p < .10$

Table 6

Officer Training and Recording

	Do you record the identification process?			
Are officers trained on how they should conduct eyewitness identifications?	*No*		*Yes*	
	N	%	N	%
No	4	57.1	3	42.9
Yes	4	12.5	28	87.5

$\chi^2 = 7.020$*
$p < .10$

Table 7

Descriptive Statistics on Overall and Functional Congruence Scores

	Never		Sometimes		Most Times		Always	
	N	%	N	%	N	%	N	%
How often are witnesses given instructions (written or unwritten) prior to the identification process?	5	10.6	4	8.5	10	21.3	28	59.6
How often are 'filler' chosen based on the description given by the witness?	10	24.4	22	53.7	8	19.5	1	2.4
How often does your department use the double blind procedure?	24	72.7	8	24.2	1	3.0	0	0.0
How often does your department use the sequential procedure?	16	50.0	12	37.5	2	6.3	2	6.3
How often does your department use obtain a confidence statement from the witness?	16	39.0	11	26.8	4	9.8	10	24.4
How often do you record the identification procedure?	8	20.5	7	17.9	10	25.6	14	35.9

Table 8

Independent Samples T-test, Overall and Functional Congruence

Independent Variable	**F**	**t**	**df**	**Mean Difference**
Overall Congruence				
Agency Type	2.261	1.088	21	1.258
Written Procedure	.035	-1.296	23	-1.372
Officer Training	.052	-1.966*	23	-3.674
Functional Congruence				
Agency Type	.010	-.048	16.304	-.042
Written Procedure	.332	-1.983*	25	-1.434
Officer Training	.013	-2.774*	25	-3.000

*p < .10

Table 9

Overall and Functional Congruence Scores

	Poor		Average		Desirable	
	N	%	N	%	N	%
Overall Congruence Score (Avg. Score = 7.88)						
Agency Type*						
City Agencies	0	0.0	14	93.3	1	6.7
County Agencies	3	37.5	5	62.5	0	0.0
Written Procedure						
No	2	16.7	9	75.0	1	8.3
Yes	1	7.7	11	84.6	1	7.7
Officer Training						
No	1	50.0	1	50.0	0	0.0
Yes	2	8.7	19	82.6	2	8.7
Functional Congruence Score (Avg. Score = 4.67)						
Agency Type						
City Agencies	4	25.0	11	68.8	1	6.3
County Agencies	2	22.2	7	77.7	0	0.0
Written Procedure						
No	5	38.5	8	61.5	0	0.0
Yes	1	7.7	12	85.7	1	7.1
Officer Training*						
No	3	100.0	0	0.0	0	0.0
Yes	3	22.2	20	74.1	1	3.7

*p < .10

Table 10

Recommendations and Three Themes

	Agency Type	**Written Procedure**	**Training**
Are witnesses given instructions (written or unwritten) prior to the identification process?	N.S.	*	N.S.
Are 'filler' chosen based on the description given by the witness?	N.S.	*	*
Does your department use the sequential procedure?	N.S.	N.S.	*
Does your department use the double blind procedure?	N.S.	N.S.	N.S.
Do you record the identification procedure?	N.S.	N.S.	*
Does your department use obtain a confidence statement from the witness?	N.S.	N.S.	N.S.

* = $p < .10$